



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/563,369	01/04/2006	Kazunobu Sakai	2005_2072A	4092
52349 7590 05/28/2008 WENDEROTH, LIND & PONACK L.L.P. 2033 K. STREET, NW SUITE 800 WASHINGTON, DC 20006			EXAMINER SEMENENKO, YURIY	
			ART UNIT 2841	PAPER NUMBER
			MAIL DATE 05/28/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/563,369	<b>Applicant(s)</b> SAKAI, KAZUNOBU	
	<b>Examiner</b> YURIY SEMENENKO	<b>Art Unit</b> 2841	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 February 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6,9 and 10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9 and 10 is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Specification***

1. The objection to the Specification has been withdrawn.

### ***Claim***

2. The objections to the Claims have been withdrawn.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1- 5 and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claims 1, and 6: It is unclear why material of the inspection-use board has different properties on its surfaces. If “an inspection-use board is formed from a light transmitting material” then it should have both identical surfaces partially transmitting light and partially reflecting light equally on both of the surfaces or if “an inspection-use board has a reflecting surface disposed on a surface opposed to its component mounting-side surface” which means these surfaces are different from each other by optical properties then it should be some limitation points out on such difference between these surfaces.

Claims 2-5 depend on claim 1 and have same deficiency.

The claim language needs to be clarified.

***Allowable Subject Matter***

4.1. Claims 9 and 10 are allowed.

The following is a statement of reasons for the indication of allowable subject matter of the claim 9: the limitations “an inspection-use board which is held by the component mounting apparatus in place of the board and formed from a light transmitting material, and which has a reflecting surface disposed on a surface opposed to its component mounting-side surface in a state of facing the component mounting-side surface; ... wherein the reflecting surface of the inspection-use board is a specular reflecting surface for specular reflection of the applied light, and the inspection-use board has a diffusion layer for diffusing the specular-reflected light “ in combination with other claimed limitations in independent claim 9 is not disclosed or suggested by the prior art of record.

The following is a statement of reasons for the indication of allowable subject matter of the claim 10: the limitations “an inspection-use board which is held by the component mounting apparatus in place of the board and formed from a light transmitting material, and which has a reflecting surface disposed on a surface opposed to its component mounting-side surface in a state of facing the component mounting-side surface; ... wherein the reflecting surface of the inspection-use board is a diffuse reflecting surface for reflecting the applied light with diffusion“ in combination with other claimed limitations in independent claim 10 is not disclosed or suggested by the prior art of record.

5.2. Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, but would be allowable if rewritten to fixed deficiency discussed above in paragraph 3.

As to claim 1-5: Limitation “mounting the inspection-use component with the component holding member in such a way that the reflecting surface of the inspection-use component is disposed in a component mounting position on a component mounting side-surface of an inspection-use board which is formed from a light

transmitting material and which has a reflecting surface disposed on a surface opposed to the component mounting side-surface and facing the component mounting side-surface; and ...while applying light to the component mounting-side surface of the inspection-use board so as to transmit the applied light through the component mounting-side surface and reflect the applied light on the reflecting surface, picking up an image of an outline of the inspection-use component formed by reflected light coming from around the inspection-use component through the component mounting-side surface; “ in combination with other claimed limitations in independent claim 1 are not disclosed or suggested by the prior art.

Claims 2-5 are either directly or indirectly dependent upon claim 1.

As to claim 6: Limitation “mounting the component with the component holding member in a component mounting position on a component mounting side-surface of an inspection-use board, which is formed from a light transmitting material and which has a reflecting surface disposed on a surface opposed to the component mounting side-surface and facing the component mounting side-surface; while applying light to the component mounting-side surface of the inspection-use board so as to transmit the applied light through the component mounting-side surface and reflect the applied light on the reflecting surface, picking up an image of an outline of the component formed by reflected light coming from around the component through the component mounting-side surface” in combination with other claimed limitations in independent claim 6 are not disclosed or suggested by the prior art.

### ***Response to Arguments***

5. Applicant's arguments filed 02/29/2008 have been fully considered but they are not persuasive. Applicant argues “...The purpose of the claim is to specify the scope of protection for the invention with sufficient definiteness so that those of ordinary skill in the art will be apprised of the scope of the claim and know what they can make and use, and what they cannot. “ Examiner agrees with this statement. But Examiner notes that

those of ordinary skill in the art will be unable to use this invention without information that one surface of the inspection-use board has special layer (diffusion layer) on it and opposite surface of the inspection-use board has not such layer. Just giving the different names for different surfaces (reflecting surface or irreflective surface) is not enough, because if “an inspection-use board is formed from a light transmitting material” as claimed in claim 1 and 6, then such board should has both identical surfaces partially transmitting light and partially reflecting light equally on both of the surfaces, another words such surfaces should be identical by the optical properties. However for the invention is important that these surfaces be different by optical properties.

### ***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yuriy Semenenko whose telephone number is (571) 272-6106. The examiner can normally be reached on 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean A. Reichard can be reached on (571)- 272-2800 ext. 31. The fax

Art Unit: 2859

phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Yuriy Semenenko/  
Examiner, Art Unit 2841

/Dean A. Reichard/  
Supervisory Patent Examiner, Art  
Unit 2841